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NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

06/06/2008

ROSENTHAL & OSHA L.L.P.
Suite 2800
1221 McKinney Street
Houston, TX 77010

EXAMINER

CHEN, QING

ART UNIT

PAPER NUMBER

2191

DATE MAILED: 06/06/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,023	03/02/2004	Andrew G. Tucker	03226/361001; SUN040137	1283

TITLE OF INVENTION: INTERPOSING LIBRARY FOR PAGE SIZE DEPENDENCY CHECKING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$0	\$0	\$1440	09/08/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE** OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590 06/06/2008

ROSENTHAL & OSHA L.L.P.
Suite 2800
1221 McKinney Street
Houston, TX 77010

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

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nonprovisional	NO	\$1440	\$0	\$0	\$1440	09/08/2008

EXAMINER	ART UNIT	CLASS-SUBCLASS
CHEN, QING	2191	717-100000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY AND STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____
Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 918 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 918 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.

10/791,023

Examiner

Qing Chen

Applicant(s)

TUCKER, ANDREW G.

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on January 18, 2008.
2. ☒ The allowed claim(s) is/are 1,8,10,11,13 and 20, renumbered as 1-6.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This Office action is in response to the amendment filed on January 18, 2008.
2. **Claims 1, 8, 10, 11, 13, and 20** are pending.
3. **Claims 1, 8, 13, and 20** have been amended.
4. **Claims 2-7, 9, 12, and 14-19** have been cancelled.
5. **Claims 1, 8, 10, 11, 13, and 20** are allowed, renumbered as 1-6.

Examiner's Amendment

6. An Examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's amendment was given in a telephone interview with Aly Dossa (Reg. No. L0031) on May 6, 2008.

The application has been amended as follows:

In the Claims:

Please cancel Claims 6, 9, 12, and 18 and amend Claims 1, 8, 13, and 20 as follows:

1. (Currently Amended) A method for processing a call comprising:

setting a non-native page size in an interposing library, wherein the interposing library is located in a user-level of a system and wherein the interposing library is located between a user-level application and a kernel, wherein the interposing library is generated by:

searching a plurality of interfaces to determine which of the plurality of interfaces include the native page size; and

modifying the plurality of interfaces that include the native page size to obtain a plurality of modified interfaces, wherein modifying the plurality of interfaces uses the non-native page size;

intercepting the call into the kernel by the interposing library, wherein the call is issued by the user-level application, wherein the call is dependent on the non-native page size and wherein the kernel uses a native page size;

modifying the call by the interposing library using a modified interface to obtain a modified call, wherein the modified call is dependent on the native page size, wherein the modified interface is one of the plurality of modified interfaces;

sending the modified call to the kernel;

generating a response to the modified call by the kernel using the native page size, wherein the response is dependent on the native page size;

sending the response to the user-level application;

intercepting the response by the interposing library;

modifying the response to obtain a modified response, wherein the modified response is dependent on the non-native page size; and

sending the modified response to the user-level application.

6. (Cancelled)

8. (Currently Amended) A system for checking page size dependency comprising:

a processor;

a kernel, located in a kernel-level of the system and executed on the processor, using a native page size;

a user-level application located in a user-level of the system; and

an interposing library located in the user-level configured to set a non-native page size to emulate and emulate the non-native page size to the user-level application, wherein the interposing library emulates the non-native page size by modifying results from the kernel based on the non-native page size, wherein the results from the kernel are based on the native page size, wherein the interposing library is further configured to modify a call dependent on the non-native page size from the user-level application to a call dependent on the native page size for the kernel, wherein the interposing library comprises a plurality of modified interfaces for emulating the non-native page size, wherein the plurality of modified interfaces are generated by searching a plurality of interfaces to determine which of the plurality of interfaces are dependent on the native page size and modifying the plurality of interfaces that include the native page size to obtain a plurality of modified interfaces.

9. (Cancelled)

12. (Cancelled)

13. (Currently Amended) A computer system for checking page size dependency, comprising:

a processor;

a memory;

a storage device;

a computer display; and

software instructions stored in the memory for enabling the computer system under control of the processor, to:

set a non-native page size in an interposing library, wherein the interposing library is located in a user-level of a system and wherein the interposing library is located between a user-level application and a kernel, wherein the interposing library is generated by:

searching a plurality of interfaces to determine which of the plurality of interfaces are dependent on the native page size; and

modifying the plurality of interfaces that are dependent on the native page size to obtain a plurality of modified interfaces, wherein modifying the plurality of interfaces uses the non-native page size;

intercept the call into the kernel by the interposing library, wherein the call is issued by the user-level application, wherein the call is dependent on the non-native page size and wherein the kernel uses a native page size;

modify the call by the interposing library using a modified interface to obtain a modified call, wherein the modified call is dependent on the native page size, wherein the modified interface is one of the plurality of modified interfaces;

send the modified call to the kernel;

generate a response to the modified call by the kernel using the native page size, wherein the response is dependent on the native page size;

send the response to the user-level application;

intercept the response by the interposing library;

modify the response to obtain a modified response, wherein the modified response is dependent on the non-native page size; and

send the modified response to the user-level application.

18. (Cancelled)

20. (Currently Amended) A network system having a plurality of nodes, comprising:

a processor;

a kernel, located in a kernel-level of the network system and executed on the processor, using a native page size;

a user-level application located in a user-level of the network system; and

an interposing library located in the user-level configured to set a non-native page size to emulate and emulate the non-native page size to the user-level application, wherein the interposing library emulates the non-native page size by modifying results from the kernel based

on the non-native page size, wherein the results from the kernel are based on the native page size, wherein the interposing library is further configured to modify a call dependent on the non-native page size from the user-level application to a call dependent on the native page size for the kernel, wherein the interposing library comprises a plurality of modified interfaces for emulating the non-native page size, wherein the plurality of modified interfaces are generated by searching a plurality of interfaces to determine which of the plurality of interfaces are dependent on the native page size and modifying the plurality of interfaces that include the native page size to obtain a plurality of modified interfaces,

wherein the kernel executes on any node of the plurality of nodes,

wherein the user-level application executes on any node of the plurality of nodes,

wherein the interposing library executes on any node of the plurality of nodes.

-- END OF AMENDMENT --

Reasons for Allowance

7. The following is an Examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fail to teach, in combination with the other claimed limitations, "wherein the interposing library is generated by: searching a plurality of interfaces to determine which of the plurality of interfaces include the native page size; and modifying the plurality of interfaces that include the native page size to obtain a plurality of modified interfaces, wherein modifying the plurality of interfaces uses the non-native page size, wherein the modified interface is one of the plurality of modified interfaces; intercepting the call

into the kernel by the interposing library, wherein the call is issued by the user-level application, wherein the call is dependent on the non-native page size and wherein the kernel uses a native page size; and modifying the call by the interposing library using a modified interface to obtain a modified call, wherein the modified call is dependent on the native page size” as recited in independent Claims 1 and 13; and further fail to teach, in combination with the other claimed limitations, “an interposing library located in the user-level configured to set a non-native page size to emulate and emulate the non-native page size to the user-level application, wherein the interposing library emulates the non-native page size by modifying results from the kernel based on the non-native page size, wherein the results from the kernel are based on the native page size, wherein the interposing library is further configured to modify a call dependent on the non-native page size from the user-level application to a call dependent on the native page size for the kernel, wherein the interposing library comprises a plurality of modified interfaces for emulating the non-native page size, wherein the plurality of modified interfaces are generated by searching a plurality of interfaces to determine which of the plurality of interfaces are dependent on the native page size and modifying the plurality of interfaces that include the native page size to obtain a plurality of modified interfaces” as recited in independent Claims 8 and 20.

The closest cited prior art, the combination of US 6,430,670 (hereinafter “Bryg”) and US 5,815,686 (hereinafter “Earl”), teaches an apparatus and method for efficiently translating virtual addresses utilizing either single address space or multiple address space models in a virtual memory management system. However, the combination of Bryg and Earl fails to teach “wherein the interposing library is generated by: searching a plurality of interfaces to determine which of the plurality of interfaces include the native page size; and modifying the plurality of

interfaces that include the native page size to obtain a plurality of modified interfaces, wherein modifying the plurality of interfaces uses the non-native page size, wherein the modified interface is one of the plurality of modified interfaces; intercepting the call into the kernel by the interposing library, wherein the call is issued by the user-level application, wherein the call is dependent on the non-native page size and wherein the kernel uses a native page size; and modifying the call by the interposing library using a modified interface to obtain a modified call, wherein the modified call is dependent on the native page size” as recited in independent Claims 1 and 13; and further fails to teach “an interposing library located in the user-level configured to set a non-native page size to emulate and emulate the non-native page size to the user-level application, wherein the interposing library emulates the non-native page size by modifying results from the kernel based on the non-native page size, wherein the results from the kernel are based on the native page size, wherein the interposing library is further configured to modify a call dependent on the non-native page size from the user-level application to a call dependent on the native page size for the kernel, wherein the interposing library comprises a plurality of modified interfaces for emulating the non-native page size, wherein the plurality of modified interfaces are generated by searching a plurality of interfaces to determine which of the plurality of interfaces are dependent on the native page size and modifying the plurality of interfaces that include the native page size to obtain a plurality of modified interfaces” as recited in independent Claims 8 and 20.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM. The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2191

/QC/

May 7, 2008

/Wei Zhen/

Supervisory Patent Examiner, Art Unit 2191